

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A plasma display device, comprising:

a plasma display panel in which a plurality of discharge cells are arranged, and in which a phosphor layer in a color corresponding to each discharge cell is disposed, the phosphor layer being operable to emit light by being excited by ultraviolet light, wherein the phosphor layer has a green phosphor layer including a green phosphor made of $\text{Zn}_2\text{SiO}_4\text{:Mn}$ processed by calcinations in an atmosphere including at least one of N_2 , $\text{N}_2\text{-O}_2$ or Ar-O_2 at a pressure not less than 0.105 MPa and not greater than 150 MPa, the green phosphor having an even density extending from a surface to an inside of the green phosphor, and the green phosphor having an element ratio of zinc to silicon of 2/1, which is a stoichiometric ratio, at a portion which includes a proximity of the surface of the green phosphor.

2. (Currently Amended) A plasma display device, comprising:

a plasma display panel in which a plurality of discharge cells are arranged, and in which a phosphor layer in a color corresponding to each discharge cell is disposed, the phosphor layer being operable to emit light by being excited by ultraviolet light, wherein the phosphor layer has a green phosphor layer including a green phosphor made of $\text{Zn}_2\text{SiO}_4\text{:Mn}$ processed by calcinations in an atmosphere including at least one of N_2 , $\text{N}_2\text{-O}_2$ or Ar-O_2 at a pressure not less than 0.105 MPa and not greater than 150 MPa, the green phosphor having an even density extending from a surface to an inside of the green phosphor, and the green phosphor having an element ratio of zinc to silicon equal to a stoichiometric ratio at a portion which includes a proximity of the surface of the green phosphor, and wherein the green phosphor is positively charged, or zero-charged.

3. (Currently Amended) A method of producing a phosphor for a plasma display device, comprising:

a process in which one of metal salt, nitrate salt, and organometallic salt, including zinc, silicon and manganese elements which comprise a green phosphor, are blended so that an

element ratio of Zn to Si is to be 2/1, and then the salt and water are mixed to produce mixed liquid;

a pre-firing process in which, after the mixed liquid is dried, the mixed liquid is fired in an air at 600°C to 900°C, to produce pre-fired matter; and

a firing process in which the pre-fired matter is fired in an atmosphere including at least one of N₂, N₂-O₂, and Ar-O₂, between 0.105 MPa and 150MPa inclusive, at 1,000°C to 1,350°C.

4. (Currently Amended) A method of producing a phosphor for a plasma display device, comprising:

a process of mixing a raw material for a phosphor, in which a raw material of oxide and/or carbonate including zinc, silicon and manganese elements which comprise a green phosphor, are mixed;

a pre-firing process in which the mixed raw material is fired in an air at 600°C to 900°C, to produce pre-fired matter; and

a firing process in which the pre-fired matter is fired in an atmosphere including at least one of N₂, N₂-O₂, and Ar-O₂, between 0.105 MPa and 150MPa inclusive, at 1,000°C to 1,350°C.